

In the Claims:

Please amend the claims as follows:

Please cancel claims 2-16 and 18-25 without prejudice.

Please add new claims 26 to 250 as follows:

~~1~~ ~~26~~. (New) An isolated antibody or portion thereof that specifically binds to a protein consisting of an amino acid sequence of amino acid residues 1 to 285 of SEQ ID NO:2.

~~2~~ ~~27~~. (New) The antibody or portion thereof of claim ~~26~~ which is a monoclonal antibody.

~~3~~ ~~28~~. (New) The antibody or portion thereof of claim ~~26~~ which is a polyclonal antibody.

~~4~~ ~~29~~. (New) The antibody or portion thereof of claim ~~26~~ which is a Fab fragment.

~~5~~ ~~30~~. (New) The antibody or portion thereof of claim ~~26~~ which is labeled.

31. (New) The antibody or portion thereof claim 30 wherein the label is selected from the group consisting of:

- (a) an enzyme label;
- (b) a radioisotope;
- (c) a fluorescent label; and
- (d) biotin.

32. (New) The antibody or portion thereof claim 31 wherein the label is a radioisotope selected from the group consisting of:

- (a) ^{125}I ;
- (b) ^{121}I ;
- (c) ^{131}I ;
- (d) ^{112}In ; and
- (a) $^{99\text{m}}\text{Tc}$.

~~33.~~ (New) A composition comprising the antibody or portion thereof of claim ~~26~~ and a carrier.

~~34.~~ (New) An isolated cell that produces the antibody of claim ~~26~~.

~~35.~~ (New) An isolated cell line that produces the antibody of claim ~~26~~.

~~36.~~ (New) A hybridoma that produces the antibody of claim ~~26~~.

~~37.~~ (New) A hybridoma that produces the antibody of claim ~~26~~.

~~38.~~ (New) A method of detecting Neutrokin-alpha protein comprising:

(a) contacting the Neutrokin-alpha protein with the antibody or portion thereof of claim ~~26~~; and

(b) detecting the Neutrokin-alpha protein.

~~39.~~ (New) The method of claim ~~38~~ wherein the Neutrokin-alpha protein is in a biological sample.

~~40.~~ (New) The method of claim ~~38~~ wherein the Neutrokin-alpha protein is *in vivo*.

¹⁶
~~41~~. (New) The method of claim ¹³~~38~~ wherein the antibody or portion thereof is a monoclonal antibody.

¹⁷
~~42~~. (New) The method of claim ¹³~~38~~ wherein the antibody or portion thereof is a polyclonal antibody.

¹⁸
~~43~~. (New) The method of claim ¹³~~38~~ wherein the antibody or portion thereof is a Fab fragment.

¹⁹
~~44~~. (New) The method of claim ¹³~~38~~ wherein the antibody or portion thereof is labeled.

²⁰
~~45~~. (New) The method of claim ¹⁹~~44~~ wherein the label is selected from the group consisting of:

- (a) an enzyme label;
- (b) a radioisotope;
- (c) a fluorescent label; and
- (d) biotin.

²¹
~~46~~. (New) The method of claim ²⁰~~45~~ wherein the label is a radioisotope selected from the group consisting of:

- (a) ^{125}I ;
- (b) ^{121}I ;
- (c) ^{131}I ;
- (d) ^{112}In ; and
- (e) $^{99\text{m}}\text{Tc}$.

²²
~~47~~. (New) An isolated antibody or portion thereof that specifically binds to a protein consisting of an amino acid sequence of amino acid residues 73 to 285 of SEQ ID NO:2.

²³
48. (New) The antibody or portion thereof of claim ²²~~47~~ which is a monoclonal antibody.

²⁴
49. (New) The antibody or portion thereof of claim ²²~~47~~ which is a polyclonal antibody.

²⁵
50. (New) The antibody or portion thereof of claim ²²~~47~~ which is a Fab fragment.

²⁶
51. (New) The antibody or portion thereof of claim ²²~~47~~ which is labeled.

52. (New) The antibody or portion thereof claim 51 wherein the label is selected from the group consisting of:

- (a) an enzyme label;
- (b) a radioisotope;
- (c) a fluorescent label; and
- (d) biotin.

53. (New) The antibody or portion thereof claim 52 wherein the label is a radioisotope selected from the group consisting of:

- (a) ^{125}I ;
- (b) ^{121}I ;
- (c) ^{131}I ;
- (d) ^{112}In ; and
- (e) $^{99\text{m}}\text{Tc}$.

²⁷
54. (New) A composition comprising the antibody or portion thereof of claim ²⁷~~47~~ and a carrier.

³⁰
55. (New) An isolated cell that produces the antibody of claim ²²~~47~~.

21. ³¹~~56~~. (New) An isolated cell line that produces the antibody of claim ²²~~47~~.

³²~~57~~. (New) A hybridoma that produces the antibody of claim ²²~~47~~.

³³~~58~~. (New) A hybridoma that produces the antibody of claim ²³~~48~~.

³⁴~~59~~. (New) A method of detecting Neurokine-alpha protein comprising:
(a) contacting the Neurokine-alpha protein with the antibody or portion thereof of claim ²²~~47~~; and
(b) detecting the Neurokine-alpha protein.

³⁵~~60~~. (New) The method of claim ³⁴~~59~~ wherein the Neurokine-alpha protein is in a biological sample.

³⁶~~61~~. (New) The method of claim ³⁴~~59~~ wherein the Neurokine-alpha protein is *in vivo*.

³⁷~~62~~. (New) The method of claim ³⁴~~59~~ wherein the antibody or portion thereof is a monoclonal antibody.

³⁸~~63~~. (New) The method of claim ³⁴~~59~~ wherein the antibody or portion thereof is a polyclonal antibody.

³⁹~~64~~. (New) The method of claim ³⁴~~59~~ wherein the antibody or portion thereof is a Fab fragment.

⁴⁰~~65~~. (New) The method of claim ³⁴~~59~~ wherein the antibody or portion thereof is labeled.

⁴¹
~~66~~. (New) The method of claim ⁴⁰~~66~~ wherein the label is selected from the group consisting of:

- (a) an enzyme label;
- (b) a radioisotope;
- (c) a fluorescent label; and
- (d) biotin.

⁴²
~~67~~. (New) The method of claim ⁴¹~~66~~ wherein the label is a radioisotope selected from the group consisting of:

- (a) ^{125}I ;
- (b) ^{121}I ;
- (c) ^{131}I ;
- (d) ^{112}In ; and
- (e) $^{99\text{m}}\text{Tc}$.

⁴³
~~68~~. (New) An isolated antibody or portion thereof that specifically binds to a protein consisting of an amino acid sequence selected from the group consisting of:

- (a) the amino acid sequence of amino acid residues n to 285 of SEQ ID NO:2, where n is an integer in the range of 2-190;
- (b) the amino acid sequence of amino acid residues 1 to m of SEQ ID NO:2, where m is an integer in the range of 274 to 284; and
- (c) the amino acid sequence of amino acid residues n to m of SEQ ID NO:2, where n is an integer in the range of 2-190 and m is an integer in the range of 274-284.

⁴⁴
~~69~~. (New) The antibody or portion thereof of claim ⁴³~~68~~ that specifically binds a protein consisting of amino acid sequence (a).

⁴⁵
~~70.~~ (New) The antibody or portion thereof of claim ⁴³~~68~~ that specifically binds a protein consisting of amino acid sequence (b).

⁴⁶
~~71.~~ (New) The antibody or portion thereof of claim ⁴³~~68~~ that specifically binds a protein consisting of amino acid sequence (c).

⁴⁷
~~72.~~ (New) The antibody or portion thereof of claim ⁴³~~68~~ which is a monoclonal antibody.

⁴⁸
~~73.~~ (New) The antibody or portion thereof of claim ⁴³~~68~~ which is a polyclonal antibody.

⁴⁹
~~74.~~ (New) The antibody or portion thereof of claim ⁴³~~68~~ which is a Fab fragment.

⁵⁰
~~75.~~ (New) The antibody or portion thereof of claim ⁴³~~68~~ which is labeled.

^{B1}
^{cont}
76. (New) The antibody or portion thereof claim 75 wherein the label is selected from the group consisting of:

- ^{sub}
^{C4}
- (a) an enzyme label;
 - (b) a radioisotope;
 - (c) a fluorescent label; and
 - (d) biotin.

77. (New) The antibody or portion thereof claim 76 wherein the label is a radioisotope selected from the group consisting of:

- (a) ^{125}I ;
- (b) ^{121}I ;
- (c) ^{131}I ;
- (d) ^{112}In ; and
- (e) $^{99\text{m}}\text{Tc}$.

43 53 78. (New) A composition comprising the antibody or portion thereof of claim 68 and a carrier.

54 79. (New) An isolated cell that produces the antibody of claim 68. 43

55 80. (New) An isolated cell line that produces the antibody of claim 68. 43

56 81. (New) A hybridoma that produces the antibody of claim 68. 43

57 82. (New) A hybridoma that produces the antibody of claim 68. 47

83. (New) A method of detecting Neutrokin-alpha protein comprising:

(a) contacting the biological sample with the antibody or portion thereof of claim 68; and

(b) detecting the Neutrokin-alpha protein.

59 84. (New) The method of claim 83 wherein the Neutrokin-alpha protein is in a biological sample. 58

60 85. (New) The method of claim 83 wherein the Neutrokin-alpha protein is *in vivo*. 58

⁶¹
~~86.~~ (New) The method of claim ~~83~~⁵⁸ wherein the antibody or portion thereof is a monoclonal antibody.

⁶²
~~87.~~ (New) The method of claim ~~83~~⁵⁸ wherein the antibody or portion thereof is a polyclonal antibody.

⁶³
~~88.~~ (New) The method of claim ~~83~~⁵⁸ wherein the antibody or portion thereof is a Fab fragment.

⁶⁴
~~89.~~ (New) The method of claim ~~83~~⁵⁸ wherein the antibody or portion thereof is labeled.

⁶⁵
~~90.~~ (New) The method of claim ~~89~~⁶⁴ wherein the label is selected from the group consisting of:

- (a) an enzyme label;
- (b) a radioisotope;
- (c) a fluorescent label; and
- (d) biotin.

^{B'}
~~91.~~ (New) The method of claim 91 wherein the label is a radioisotope selected from the group consisting of:

- (a) ¹²⁵I;
- (b) ¹²¹I;
- (c) ¹³¹I;
- (d) ¹¹²In; and
- (e) ^{99m}Tc.

⁶⁷
~~92.~~ (New) An isolated antibody or portion thereof that specifically binds to a protein consisting of the amino acid sequence of amino acid residues 134-285 of SEQ ID NO:2.

⁶⁸
93. (New) The antibody or portion thereof of claim ⁶⁷92 which is a monoclonal antibody.

⁶⁹
94. (New) The antibody or portion thereof of claim ⁶⁷92 which is a polyclonal antibody.

⁷⁰
95. (New) The antibody or portion thereof of claim ⁶⁷92 which is a Fab fragment.

⁷¹
96. (New) The antibody or portion thereof of claim ⁶⁷92 which is labeled.

97. (New) The antibody or portion thereof claim 96 wherein the label is selected from the group consisting of:

- (a) an enzyme label;
- (b) a radioisotope;
- (c) a fluorescent label; and
- (d) biotin.

98. (New) The antibody or portion thereof claim 97 wherein the label is a radioisotope selected from the group consisting of:

- (a) ¹²⁵I;
- (b) ¹²¹I;
- (c) ¹³¹I;
- (d) ¹¹²In; and
- (e) ^{99m}Tc.

⁷⁴
⁶⁷99. (New) A composition comprising the antibody or portion thereof of claim ⁶⁷92 and a carrier.

⁷⁵
100. (New) An isolated cell that produces the antibody of claim ⁶⁷92.

⁷⁶
101. (New) An isolated cell line that produces the antibody of claim ⁶⁷92.

⁷⁷
102. (New) A hybridoma that produces the antibody of claim ⁶⁷92.

⁷⁸
103. (New) A hybridoma that produces the antibody of claim ⁶⁷93.

104. (New) A method of detecting Neutrokin-alpha protein comprising:
(a) contacting the biological sample with the antibody or portion thereof of claim 92; and
(b) detecting the Neutrokin-alpha protein.

⁸⁰
105. (New) The method of claim ⁷⁹104 wherein the Neutrokin-alpha protein is in a biological sample.

⁸¹
106. (New) The method of claim ⁷⁹104 wherein the Neutrokin-alpha protein is *in vivo*.

⁸²
107. (New) The method of claim ⁷⁹104 wherein the antibody or portion thereof is a monoclonal antibody.

⁸³
108. (New) The method of claim ⁷⁹104 wherein the antibody or portion thereof is a polyclonal antibody.

⁸⁴
109. (New) The method of claim ⁷⁹104 wherein the antibody or portion thereof is a Fab fragment.

⁸⁵
110. (New) The method of claim ⁷⁹104 wherein the antibody or portion thereof is labeled.

VB

⁸⁶
111. (New) The method of claim ⁸⁵110 wherein the label is selected from the group consisting of:

- (a) an enzyme label;
- (b) a radioisotope;
- (c) a fluorescent label; and
- (d) biotin.

⁸⁷
112. (New) The method of claim ⁸⁶111 wherein the label is a radioisotope selected from the group consisting of:

- (a) ^{125}I ;
- (b) ^{121}I ;
- (c) ^{131}I ;
- (d) ^{112}In ; and
- (e) $^{99\text{m}}\text{Tc}$.

b' cont.
113. (New) An isolated antibody or portion thereof that specifically binds to a protein consisting of a fragment of SEQ ID NO:2, wherein said fragment comprises an amino acid sequence of at least 9 contiguous amino acid residues of SEQ ID NO:2.

114. (New) The antibody or portion thereof of claim 113 wherein said fragment comprises an amino acid sequence of at least 30 contiguous amino acid residues of SEQ ID NO:2.

⁸⁹
115. (New) The antibody or portion thereof of claim ⁸⁸113 wherein said fragment comprises an amino acid sequence of at least 50 contiguous amino acid residues of SEQ ID NO:2.

⁹⁰
116. (New) The antibody or portion thereof of claim ⁸⁸113 which is a monoclonal antibody.

91
117. (New) The antibody or portion thereof of claim ~~113~~⁸⁸ which is a polyclonal antibody.

92
118. (New) The antibody or portion thereof of claim ~~113~~⁸⁸ which is a Fab fragment.

93
119. (New) The antibody or portion thereof of claim ~~113~~⁸⁸ which is labeled.

120. (New) The antibody or portion thereof claim 119 wherein the label is selected from the group consisting of:

- (a) an enzyme label;
- (b) a radioisotope;
- (c) a fluorescent label; and
- (d) biotin.

B' cont. sub C¹⁰
121. (New) The antibody or portion thereof claim 120 wherein the label is a radioisotope selected from the group consisting of:

- (a) ¹²⁵I;
- (b) ¹²¹I;
- (c) ¹³¹I;
- (d) ¹¹²In; and
- (e) ^{99m}Tc.

96
122. (New) A composition comprising the antibody or portion thereof of claim ~~113~~⁸⁸ and a carrier.

97
123. (New) An isolated cell that produces the antibody of claim ~~113~~⁸⁸.

98
124. (New) An isolated cell line that produces the antibody of claim ~~113~~⁸⁸.

99
125. (New) A hybridoma that produces the antibody of claim ~~113~~⁸⁸.

¹⁰⁰
126. (New) A hybridoma that produces the antibody of claim ⁹⁰116.

127. (New) A method of detecting Neutrokin-alpha protein comprising:

(a) contacting the biological sample with the antibody or portion

thereof of claim 113; and

(b) detecting the Neutrokin-alpha protein.

¹⁰²
128. (New) The method of claim ¹⁰¹127 wherein the Neutrokin-alpha protein is in a biological sample.

¹⁰³
129. (New) The method of claim ¹⁰¹127 wherein the Neutrokin-alpha protein is *in vivo*.

¹⁰⁴
130. (New) The method of claim ¹⁰¹127 wherein the antibody or portion thereof is a monoclonal antibody.

¹⁰⁵
131. (New) The method of claim ¹⁰¹127 wherein the antibody or portion thereof is a polyclonal antibody.

¹⁰⁶
132. (New) The method of claim ¹⁰¹127 wherein the antibody or portion thereof is a Fab fragment.

¹⁰⁷
133. (New) The method of claim ¹⁰¹127 wherein the antibody or portion thereof is labeled.

¹⁰⁸
134. (New) The method of claim ¹⁰⁷133 wherein the label is selected from the group consisting of:

- (a) an enzyme label;
- (b) a radioisotope;
- (c) a fluorescent label; and
- (d) biotin.

~~109~~ 135. (New) The method of claim ~~134~~ ¹⁰⁸ wherein the label is a radioisotope selected from the group consisting of:

- (a) ^{125}I ;
- (b) ^{121}I ;
- (c) ^{131}I ;
- (d) ^{112}In ; and
- (e) $^{99\text{m}}\text{Tc}$.

~~110~~ 136. (New) An isolated antibody or portion thereof that specifically binds to a protein consisting of a fragment of SEQ ID NO:2, wherein said fragment comprises an amino acid sequence selected from the group consisting of:

- (a) the amino acid sequence of amino acid residues 115 to 147 of SEQ ID NO:2;
- (b) the amino acid sequence of amino acid residues 150 to 163 of SEQ ID NO:2;
- (c) the amino acid sequence of amino acid residues 171 to 194 of SEQ ID NO:2;
- (d) the amino acid sequence of amino acid residues 223 to 247 of SEQ ID NO:2; and
- (e) the amino acid sequence of amino acid residues 271 to 278 of SEQ ID NO:2.

~~111~~ 137. (New) The antibody or portion thereof of claim ~~136~~ ¹¹⁰ that specifically binds a protein consisting of a fragment of SEQ ID NO:2, wherein said fragment comprises amino acid sequence (a).

~~112~~ 138. (New) The antibody or portion thereof of claim ~~137~~ ¹¹⁰ that specifically binds a protein consisting of a fragment of SEQ ID NO:2, wherein said fragment comprises amino acid sequence (b).

B

¹¹³
139. (New) The antibody or portion thereof of claim ¹¹⁰~~136~~ that specifically binds a protein consisting of a fragment of SEQ ID NO:2, wherein said fragment comprises amino acid sequence (c).

¹¹⁴
140. (New) The antibody or portion thereof of claim ¹¹⁰~~136~~ that specifically binds a protein consisting of a fragment of SEQ ID NO:2, wherein said fragment comprises amino acid sequence (d).

¹¹⁵
141. (New) The antibody or portion thereof of claim ¹¹⁰~~136~~ that specifically binds a protein consisting of a fragment of SEQ ID NO:2, wherein said fragment comprises amino acid sequence (e).

¹¹⁶
142. (New) The antibody or portion thereof of claim ¹¹⁰~~136~~ which is a monoclonal antibody.

¹¹⁷
143. (New) The antibody or portion thereof of claim ¹¹⁰~~136~~ which is a polyclonal antibody.

¹¹⁸
144. (New) The antibody or portion thereof of claim ¹¹⁰~~136~~ which is a Fab fragment.

¹¹⁹
145. (New) The antibody or portion thereof of claim ¹¹⁰~~136~~ which is labeled.

146. (New) The antibody or portion thereof claim 145 wherein the label is selected from the group consisting of:

- (a) an enzyme label;
- (b) a radioisotope;
- (c) a fluorescent label; and
- (d) biotin.

147. (New) The antibody or portion thereof claim 146 wherein the label is a radioisotope selected from the group consisting of:

- (a) ^{125}I ;
- (b) ^{121}I ;
- (c) ^{131}I ;
- (d) ^{112}In ; and
- (e) $^{99\text{m}}\text{Tc}$.

110 148. (New) A composition comprising the antibody or portion thereof of claim 136 and a carrier.

123 149. (New) An isolated cell that produces the antibody of claim 136.

124 150. (New) An isolated cell line that produces the antibody of claim 136.

125 151. (New) A hybridoma that produces the antibody of claim 136.

126 152. (New) A hybridoma that produces the antibody of claim 142.

153. (New) A method of detecting Neutrokin-alpha protein comprising:

(a) contacting the biological sample with the antibody or portion thereof of claim 136; and

(b) detecting the Neutrokin-alpha protein.

128 154. (New) The method of claim 153 wherein the Neutrokin-alpha protein is in a biological sample.

129 155. (New) The method of claim 153 wherein the Neutrokin-alpha protein is *in vivo*.

¹³⁰
136. (New) The method of claim ¹²⁷153 wherein the antibody or portion thereof is a monoclonal antibody.

¹³¹
137. (New) The method of claim ¹²⁷153 wherein the antibody or portion thereof is a polyclonal antibody.

¹³²
138. (New) The method of claim ¹²⁷153 wherein the antibody or portion thereof is a Fab fragment.

¹³³
139. (New) The method of claim ¹²⁷153 wherein the antibody or portion thereof is labeled.

¹³⁴
140. (New) The method of claim ¹³³159 wherein the label is selected from the group consisting of:

- B' cont.
- (a) an enzyme label;
 - (b) a radioisotope;
 - (c) a fluorescent label; and
 - (d) biotin.

¹³⁵
141. (New) The method of claim ¹³⁴160 wherein the label is a radioisotope selected from the group consisting of:

- (a) ¹²⁵I;
- (b) ¹²¹I;
- (c) ¹³¹I;
- (d) ¹¹²In; and
- (e) ^{99m}Tc.

¹³⁶
142. (New) An isolated antibody or portion thereof that specifically binds to a protein consisting of the full-length protein encoded by the cDNA contained in ATCC Deposit Number 97768.

¹³⁷
163. (New) The antibody or portion thereof of claim ¹³⁶162 which is a monoclonal antibody.

¹³⁸
164. (New) The antibody or portion thereof of claim ¹³⁶162 which is a polyclonal antibody.

¹³⁹
165. (New) The antibody or portion thereof of claim ¹³⁶162 which is a Fab fragment.

¹⁴⁰
166. (New) The antibody or portion thereof of claim ¹³⁶162 which is labeled.

167. (New) The antibody or portion thereof claim 166 wherein the label is selected from the group consisting of:

- (a) an enzyme label;
- (b) a radioisotope;
- (c) a fluorescent label; and
- (d) biotin.

168. (New) The antibody or portion thereof claim 167 wherein the label is a radioisotope selected from the group consisting of:

- (a) ¹²⁵I;
- (b) ¹²¹I;
- (c) ¹³¹I;
- (d) ¹¹²In; and
- (e) ^{99m}Tc.

¹⁴³
169. (New) A composition comprising the antibody or portion thereof of claim ¹³⁶162 and a carrier.

¹⁴⁴
170. (New) An isolated cell that produces the antibody of claim ¹³⁶162.

¹⁴⁵
171. (New) An isolated cell line that produces the antibody of claim ¹³⁶~~162~~.

¹⁴⁶
172. (New) A hybridoma that produces the antibody of claim ¹³⁶~~162~~.

¹⁴⁷
173. (New) A hybridoma that produces the antibody of claim ¹³⁶~~163~~.

174. (New) A method of detecting Neutrokin-alpha protein comprising:

(a) contacting the biological sample with the antibody or portion

thereof of claim 162; and

(b) detecting the Neutrokin-alpha protein.

¹⁴⁹
175. (New) The method of claim ¹⁴⁸~~174~~ wherein the Neutrokin-alpha protein is in a biological sample.

¹⁵⁰
176. (New) The method of claim ¹⁴⁸~~174~~ wherein the Neutrokin-alpha protein is *in vivo*.

¹⁵¹
177. (New) The method of claim ¹⁴⁸~~174~~ wherein the antibody or portion thereof is a monoclonal antibody.

¹⁵²
178. (New) The method of claim ¹⁴⁸~~174~~ wherein the antibody or portion thereof is a polyclonal antibody.

¹⁵³
179. (New) The method of claim ¹⁴⁸~~174~~ wherein the antibody or portion thereof is a Fab fragment.

¹⁵⁴
180. (New) The method of claim ¹⁴⁸~~174~~ wherein the antibody or portion thereof is labeled.

B

¹⁵⁵
~~181.~~ (New) The method of claim ~~180~~¹⁵⁴ wherein the label is selected from the group consisting of:

- (a) an enzyme label;
- (b) a radioisotope;
- (c) a fluorescent label; and
- (d) biotin.

¹⁵⁶
~~182.~~ (New) The method of claim ~~181~~¹⁵⁴ wherein the label is a radioisotope selected from the group consisting of:

- (a) ^{125}I ;
- (b) ^{121}I ;
- (c) ^{131}I ;
- (d) ^{112}In ; and
- (e) $^{99\text{m}}\text{Tc}$.

¹⁵⁷
~~183.~~ (New) An isolated antibody or portion thereof that specifically binds to a protein consisting of the extracellular domain of the protein encoded by the cDNA contained in ATCC Deposit Number 97768.

¹⁵⁸
~~184.~~ (New) The antibody or portion thereof of claim ~~183~~¹⁵⁷ which is a monoclonal antibody.

¹⁵⁹
~~185.~~ (New) The antibody or portion thereof of claim ~~183~~¹⁵⁷ which is a polyclonal antibody.

¹⁶⁰
~~186.~~ (New) The antibody or portion thereof of claim ~~183~~¹⁵⁷ which is a Fab fragment.

¹⁶¹
~~187.~~ (New) The antibody or portion thereof of claim ~~183~~¹⁵⁷ which is labeled.

357

13

188. (New) The antibody or portion thereof claim 187 wherein the label is selected from the group consisting of:

- (a) an enzyme label;
- (b) a radioisotope;
- (c) a fluorescent label; and
- (d) biotin.

189. (New) The antibody or portion thereof claim 188 wherein the label is a radioisotope selected from the group consisting of:

- (a) ^{125}I ;
- (b) ^{121}I ;
- (c) ^{131}I ;
- (d) ^{112}In ; and
- (e) $^{99\text{m}}\text{Tc}$.

190. (New) A composition comprising the antibody or portion thereof of claim 183 and a carrier.

191. (New) An isolated cell that produces the antibody of claim 183.

192. (New) An isolated cell line that produces the antibody of claim 183.

193. (New) A hybridoma that produces the antibody of claim 183.

194. (New) A hybridoma that produces the antibody of claim 184.

195. (New) A method of detecting Neutrokin- α protein comprising:

- (a) contacting the biological sample with the antibody or portion thereof of claim 183; and
- (b) detecting the Neutrokin- α protein.

¹⁷⁰
196. (New) The method of claim ¹⁶⁹195 wherein the Neutrokin- α protein is in a biological sample.

¹⁷¹
197. (New) The method of claim ¹⁷⁰195 wherein the Neutrokin- α protein is *in vivo*.

¹⁷²
198. (New) The method of claim ¹⁷¹195 wherein the antibody or portion thereof is a monoclonal antibody.

¹⁷³
199. (New) The method of claim ¹⁷²195 wherein the antibody or portion thereof is a polyclonal antibody.

¹⁷⁴
200. (New) The method of claim ¹⁷³195 wherein the antibody or portion thereof is a Fab fragment.

B1
cont.
¹⁷⁵
201. (New) The method of claim ¹⁷⁴195 wherein the antibody or portion thereof is labeled.

¹⁷⁶
202. (New) The method of claim ¹⁷⁵201 wherein the label is selected from the group consisting of:

- (a) an enzyme label;
- (b) a radioisotope;
- (c) a fluorescent label; and
- (d) biotin.

177
203. (New) The method of claim 202 wherein the label is a radioisotope selected from the group consisting of:

- (a) ^{125}I ;
- (b) ^{121}I ;
- (c) ^{131}I ;
- (d) ^{112}In ; and
- (e) $^{99\text{m}}\text{Tc}$.

178
204. (New) An isolated antibody or portion thereof that specifically binds to a protein consisting of an amino acid sequence selected from the group consisting of:

B' cont'd
(a) the amino acid sequence of an amino-terminal deletion protein mutant of the full-length protein encoded by the cDNA contained in ATCC Deposit Number 97768, wherein said amino-terminal deletion protein mutant excludes up to 190 amino acid residues from the amino terminus of said full-length protein encoded by the cDNA contained in ATCC Deposit Number 97768;

(b) the amino acid sequence of a carboxy-terminal deletion protein mutant of the full-length protein encoded by the cDNA contained in ATCC Deposit Number 97768, wherein said carboxy-terminal deletion protein mutant excludes up to 11 amino acid residues from the carboxy terminus of said full-length protein encoded by the cDNA contained in ATCC Deposit Number 97768; and

(c) the amino acid sequence of an amino- and carboxy-terminal deletion protein mutant of the full-length protein encoded by the cDNA contained in ATCC Deposit Number 97768, wherein said amino- and carboxy-terminal deletion protein mutant excludes up to 190 amino acid residues from the amino terminus and up to 11 amino acid residues from the carboxy terminus of said said full-length protein encoded by the cDNA contained in ATCC Deposit Number 97768.

179
205. (New) The antibody or portion thereof of claim 204 that specifically binds a protein consisting of amino acid sequence (a).
178

¹⁸⁰
206. (New) The antibody or portion thereof of claim ¹⁷⁸~~204~~ that specifically binds a protein consisting of amino acid sequence (b).

¹⁸¹
207. (New) The antibody or portion thereof of claim ¹⁷⁸~~204~~ that specifically binds a protein consisting of amino acid sequence (c).

¹⁸²
208. (New) The antibody or portion thereof of claim ¹⁷⁸~~204~~ which is a monoclonal antibody.

¹⁸³
209. (New) The antibody or portion thereof of claim ¹⁷⁸~~204~~ which is a polyclonal antibody.

¹⁸⁴
210. (New) The antibody or portion thereof of claim ¹⁷⁸~~204~~ which is a Fab fragment.

211. (New) The antibody or portion thereof of claim 204 which is labeled.

212. (New) The antibody or portion thereof claim 211 wherein the label is selected from the group consisting of:

- (a) an enzyme label;
- (b) a radioisotope;
- (c) a fluorescent label; and
- (d) biotin.

¹⁸⁷
213. (New) The antibody or portion thereof claim ¹⁸⁶212 wherein the label is a radioisotope selected from the group consisting of:

- (a) ^{125}I ;
- (b) ^{121}I ;
- (c) ^{131}I ;
- (d) ^{112}In ; and
- (e) $^{99\text{m}}\text{Tc}$.

¹⁷⁸
214. (New) A composition comprising the antibody or portion thereof of claim ¹⁸⁸204 and a carrier.

¹⁸⁹
215. (New) An isolated cell that produces the antibody of claim ¹⁷⁸204.

¹⁹⁰
216. (New) An isolated cell line that produces the antibody of claim ¹⁷⁸204.

¹⁹¹
217. (New) A hybridoma that produces the antibody of claim ¹⁷⁸204.

¹⁹²
218. (New) A hybridoma that produces the antibody of claim ¹⁸²208.

219. (New) A method of detecting Neutrokin- α protein comprising:

(a) contacting the biological sample with the antibody or portion thereof of claim 204; and

(b) detecting the Neutrokin- α protein.

¹⁹⁴
220. (New) The method of claim ¹⁹³219 wherein the Neutrokin- α protein is in a biological sample.

¹⁹⁵
221. (New) The method of claim ¹⁹³219 wherein the Neutrokin- α protein is *in vivo*.

¹⁹⁶
222. (New) The method of claim ~~219~~¹⁹³ wherein the antibody or portion thereof is a monoclonal antibody.

¹⁹⁷
223. (New) The method of claim ~~219~~¹⁹³ wherein the antibody or portion thereof is a polyclonal antibody.

¹⁹⁸
224. (New) The method of claim ~~219~~¹⁹³ wherein the antibody or portion thereof is a Fab fragment.

¹⁹⁹
225. (New) The method of claim ~~219~~¹⁹³ wherein the antibody or portion thereof is labeled.

²⁰⁰
226. (New) The method of claim ~~225~~¹⁹⁹ wherein the label is selected from the group consisting of:

- B' cont.
- (a) an enzyme label;
 - (b) a radioisotope;
 - (c) a fluorescent label; and
 - (d) biotin.

²⁰¹
227. (New) The method of claim ~~226~~²⁰⁰ wherein the label is a radioisotope selected from the group consisting of:

- (a) ¹²⁵I;
- (b) ¹²¹I;
- (c) ¹³¹I;
- (d) ¹¹²In; and
- (e) ^{99m}Tc.

228. (New) An isolated antibody or portion thereof that specifically binds to a protein consisting of a fragment of the polypeptide encoded by the cDNA contained in ATCC Deposit Number 97768, wherein said fragment comprises an amino acid sequence of at least 9 contiguous amino acid residues of the polypeptide encoded by the cDNA contained in ATCC Deposit Number 97768.

229. (New) The antibody or portion thereof of claim 228, wherein said fragment comprises an amino acid sequence of at least 30 contiguous amino acid residues of the polypeptide encoded by the cDNA contained in ATCC Deposit Number 97768.

230. (New) The antibody or portion thereof of claim 228, wherein said fragment comprises an amino acid sequence of at least 50 contiguous amino acid residues of the polypeptide encoded by the cDNA contained in ATCC Deposit Number 97768.

231. (New) The antibody or portion thereof of claim 228 which is a monoclonal antibody.

232. (New) The antibody or portion thereof of claim 228 which is a polyclonal antibody.

233. (New) The antibody or portion thereof of claim 228 which is a Fab fragment.

234. (New) The antibody or portion thereof of claim 228 which is labeled.

235. (New) The antibody or portion thereof claim 234 wherein the label is selected from the group consisting of:

- (a) an enzyme label;
- (b) a radioisotope;
- (c) a fluorescent label; and
- (d) biotin.

236. (New) The antibody or portion thereof claim 235 wherein the label is a radioisotope selected from the group consisting of:

- (a) ^{125}I ;
- (b) ^{121}I ;
- (c) ^{131}I ;
- (d) ^{112}In ; and
- (e) $^{99\text{m}}\text{Tc}$.

²¹⁰
~~202~~ ~~237~~ (New) A composition comprising the antibody or portion thereof of claim ~~228~~ and a carrier.

²¹¹
~~238~~ (New) An isolated cell that produces the antibody of claim ~~228~~.

²¹²
~~239~~ (New) An isolated cell line that produces the antibody of claim ~~228~~.

²¹³
~~240~~ (New) A hybridoma that produces the antibody of claim ~~228~~.

²¹⁴
~~241~~ (New) A hybridoma that produces the antibody of claim ~~231~~.

242. (New) A method of detecting Neutrokin- α protein comprising:

(a) contacting the biological sample with the antibody or portion

thereof of claim 228; and

(b) detecting the Neutrokin- α protein.

²¹⁶
~~243~~ (New) The method of claim ~~242~~ wherein the Neutrokin- α protein is in a biological sample.

²¹⁷
~~244~~ (New) The method of claim ~~242~~ wherein the Neutrokin- α protein is *in vivo*.

²¹⁸
~~245~~ (New) The method of claim ~~242~~ wherein the antibody or portion thereof is a monoclonal antibody.

²¹⁹
~~246~~ (New) The method of claim ~~242~~ wherein the antibody or portion thereof is a polyclonal antibody.

²²⁰
~~247~~ (New) The method of claim ~~242~~ wherein the antibody or portion thereof is a Fab fragment.

²²¹
248. (New) The method of claim ²¹⁵242 wherein the antibody or portion thereof is labeled.

²²²
249. (New) The method of claim ²²¹248 wherein the label is selected from the group consisting of:

- (a) an enzyme label;
- (b) a radioisotope;
- (c) a fluorescent label; and
- (d) biotin.

²²³
250. (New) The method of claim ²²²249 wherein the label is a radioisotope selected from the group consisting of:

- (a) ¹²⁵I;
- (b) ¹²¹I;
- (c) ¹³¹I;
- (d) ¹¹²In; and
- (e) ^{99m}Tc.